

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William E. Hickman on 29 October 2009.

The application has been amended as follows: in claim 1 delete "about" from the last line and insert "surrounding" between the words "annular opening" and "the vortex extender pin."

***Allowable Subject Matter***

The following is an examiner's statement of reasons for allowance: The closest prior art reference is Fernandes '558. Although, Fernandes '558 teaches a swirl separator (10) with a tubular housing (24), an axial inlet (46) with a swirl imparting means (44), a solid outlet opening (89) at the opposite end of the housing, a co-axial gas outlet conduit (32), and a vortex extender pin (74) along the axis of the tubular housing, Fernandes '558 fails to teach an annular opening (68) surrounding the vortex extender pin. Fernandes '558 and none of the other prior art references of record teach or fairly suggest the structural limitations where the solids outlet comprises an annular opening for a swirl tube separator that surrounds a vortex extender pin in combination with the previously stated structural limitations of instant claim 1. Additionally, it would not have been obvious to a person of ordinary skill in the art at the time of the present invention to provide such structure because none of the prior art references of record suggest such

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modification. Accordingly, dependent claims 2-5 and 7-15 linked to independent claim 1 are also allowable. Claim 6 has been cancelled.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonji Turner whose telephone number is 571-272-1203. The examiner can normally be reached on Monday - Friday, 10:00 am – 2:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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11/2/2009

/Duane Smith/  
Supervisory Patent Examiner, Art Unit 1797